

PATENT APPLICATION TRANSMITTAL LETTER

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Case Docket No. 1.827.99

Transmitted herewith for filing are papers related to the patent application of:

Inventor(s): **WALTER JOE MIKULSKI**

For: **A PORTABLE EXERCISE ASSEMBLY**

Enclosed are:

  X     8   sheet(s) of drawings.

       An assignment of the invention to: \_\_\_\_\_

       Certified copy(ies) of the following application(s), the priority of which is hereby claimed under 35 USC §119: \_\_\_\_\_

  X   A verified statement to establish small entity status under 37 C.F.R. 1.9 and 37 CFR 1.27.

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Independent claims	3	- 3 = 0	x 39 =		x 78 =	
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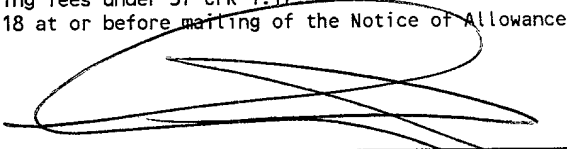
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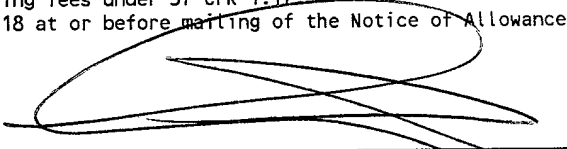
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Applicant: Walter Joseph Mikulski  
 Serial No.:  
 Filing Date: January 24, 2000  
 For: A PORTABLE EXERCISE ASSEMBLY

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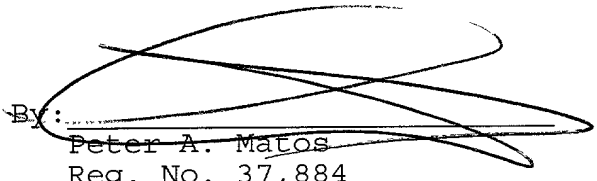
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## INDEPENDENT INVENTOR - SMALL ENTITY STATUS

Applicant or Patentee: WALTER JOSEPH MIKULSKI Attorney's  
Serial or Patent No.: \_\_\_\_\_ Docket No.: 1.827.99  
Filed or Issued: \_\_\_\_\_  
For: A PORTABLE EXERCISE ASSEMBLY

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY  
STATUS (37 CFR 1.9(f) and 1.27(b) - INDEPENDENT INVENTOR

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled,

A PORTABLE EXERCISE ASSEMBLY  
described in

- [ ☒ ] the specification filed herewith.  
[ ] application serial no. \_\_\_\_\_, filed \_\_\_\_\_  
[ ] patent no. \_\_\_\_\_, issued \_\_\_\_\_

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I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

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W Joe Mikulski (WALTER JOE MIKULSKI)  
NAME OF INVENTOR NAME OF INVENTOR NAME OF INVENTOR  
WALTER JOSEPH MIKULSKI

Signature of Inventor \_\_\_\_\_  
W Joe Mikulski  
Date \_\_\_\_\_ Date \_\_\_\_\_ Date \_\_\_\_\_

Jan 8 / 00

## A PORTABLE EXERCISE ASSEMBLY

BACKGROUND OF THE INVENTION

This is a continuation-in-part application of presently pending U.S. Patent application, serial number 09/477,951 filed on January 5, 2000, which is incorporated herein by reference.

Field of the Invention

The present invention relates to a portable exercise assembly comprising a base and/or mounting assembly each structured to be selectively oriented in either an operative position or a collapsed position and made from a strong light weight material which, when in their collapsed position, are capable of being easily hand carried from location to location and when in their operative position are structured, in cooperation with a plurality of associated operative components, to allow a user to perform a full range of exercises involving substantially all of the major muscle groups. A resistance assembly is provided to offer sufficient resistance to satisfy both the more dedicated, as well as the more casual exercise or work-out enthusiast.

DESCRIPTION OF THE RELATED ART

In recent years there has been an ever increasing tendency for the general population to follow a healthier life style.

1 Such an improved life style frequently incorporates a somewhat  
2 restricted low fat diet in addition to an increased amount of  
3 physical activity, in the form of exercise. Typically, an  
4 exercise regiment followed by most individuals seriously  
5 concerned with the improvement of their overall well-being and  
6 body fitness, comprises cardiovascular type exercises as well as  
7 exercises directed to the development of specific muscle groups.  
8 In the latter category, there has been a proliferation of a  
9 variety of different types of exercise devices and/or apparatus,  
10 which facilitate the performance of a specific exercise,  
11 dependent on which portion of the body or which specific muscle  
12 group a person wishes to exercise and/or develop.

13 Known exercise devices of the type set forth above  
14 typically include one or more resistance elements, such as but  
15 not limited to springs, flexible material bows, weights, etc.  
16 which are connected to a plurality of attachment members and/or  
17 platforms removably securable to certain portions of a person's  
18 body. Such known structures thereby allow the performance of  
19 one or more exercises in a manner which hopefully will provide  
20 the most benefit to the muscle grouping being exercised. In  
21 addition, as part of certain known or conventional exercise  
22 assemblies, the utilization of substantially large and somewhat  
23 fixed apparatus are sometimes required. Generally, such  
24 apparatus includes some type of support platform on which a user  
25 is positioned. The support platform is then oriented at a

1 preferred angular orientation relative to a floor, ground or  
2 other support surface. The platform thereby supports and serves  
3 to orient a portion of the user's body in a position which  
4 facilitates movement of the user's body or a particular muscle  
5 group in an intended position to best accomplish the desired  
6 exercise.

7 While platforms and their associated support frames of the  
8 type set forth above are used in a variety of different exercise  
9 assemblies, for the performance of certain specified exercises,  
10 there are generally recognized disadvantages associated with  
11 such apparatus. Such disadvantages are typically associated  
12 with, but are not necessarily limited to size, weight, and to a  
13 certain extent, instability. Instability is a recognized  
14 disadvantage or even possible danger, particularly with exercise  
15 apparatus which supports the body engaging platform in a raised  
16 location above the ground, floor or other support surface on  
17 which such apparatus is normally positioned.

18 The recognized disadvantages associated with size and  
19 weight result in the inability of those utilizing such exercise  
20 equipment to travel with or easily re-locate a preferred  
21 exercise apparatus. This problem is particularly understood by  
22 "body builders" or those individuals who train and/or exercise  
23 on a regular or strictly scheduled basis. By way of example,  
24 one often finds that in a motel or hotel, there is no spa or  
25 gymnasium facility available. On the other hand, when such

1 physical exercise facilities are available, they are frequently  
2 operated only during somewhat limited hours of use, which  
3 prevents utilization of such facilities, except during  
4 conventional hours. Such conventional periods of usage is often  
5 inconvenient for those traveling on business, since business  
6 hours are usually spent away from the hotel and the affiliated  
7 gymnasium or exercise equipment. In addition, to the above, it  
8 is not uncommon for a "body builder" to prefer to workout in a  
9 certain amount of privacy or isolation, which is difficult, if  
10 not impossible, when using a public or semi-public facility,  
11 such as a gymnasium, hotel spa, etc.

12 Those associated with the design and manufacture of  
13 exercise equipment have recognized many of the types of  
14 disadvantages associated with the size and weight of existing  
15 equipment. As a result, most sporting goods stores offer a  
16 relatively large choice of "body toners" and other exercise  
17 devices, which are portable, but which may be somewhat limited  
18 in the types of exercise and amount of resistance available  
19 while utilizing such equipment. For example, one device may  
20 allow for the performance of certain upper body exercises but be  
21 devoid of any type of equipment which will allow the performance  
22 of meaningful lower body exercises. A body builder or other  
23 individual seriously interested in the development of the  
24 overall body, rather than being content with the development of  
25 a certain specific muscle group, must acquire one machine for a

1 specific exercise or group of exercises and another machine for  
2 other exercises. In addition, known portable machines, will  
3 usually be very limited in the amount of resistance available to  
4 the body builder when performing his exercise. This of course  
5 is important due to the fact that a relatively significant  
6 amount of resistance is usually required by an individual having  
7 the various muscle groups being highly developed.

8 Accordingly, there is a need for exercise equipment which  
9 is sufficiently lightweight and compact to be portable and  
10 therefore be easily carried by a user between different  
11 locations. Such a preferred exercise assembly should also be  
12 designed to facilitate positioning and set-up, at either the  
13 home or place of business and also be of sufficiently small  
14 size, when hand carried to an airport, to be acceptable as "free  
15 allowed check in baggage". In addition, such improved exercise  
16 equipment or apparatus should be specifically structured to have  
17 sufficient versatility to perform substantially all of the basic  
18 and most important exercises for body builders or the more  
19 conscientious exercise enthusiast. Such basic exercises may  
20 include, but are not necessarily limited to, leg presses, leg  
21 extensions, alternate leg curls, bench press/dips, pull-ups,  
22 military press, rowing movement, arm curls, triceps extensions,  
23 alternate hamstring flexes, sit-ups, etc. Also a major  
24 importance in such an improved exercise assembly is the  
25 providing of a sufficient amount of resistance, through both the



1 utilization and placement of a plurality of resistance members,  
2 to offer sufficient resistance to the more sophisticated  
3 exercise enthusiast to satisfy the requirements for sufficient  
4 and continued development of the various muscle groups of the  
5 body. Accordingly, an improved exercise assembly of the type  
6 referred to herein should have a resistance range from  
7 substantially ten pound (10 lb.) to in excess of approximately  
8 one hundred fifty pounds (150 lb.) and further should be  
9 structured to allow the incremental variance in change in at  
10 least ten pound (10 lb.) increments. Finally, such an improved  
11 exercise assembly should operate on a smooth, almost effortless  
12 basis, and accurately direct the resulting resistance or stress  
13 only to the intended muscle groupings.

#### SUMMARY OF THE INVENTION

14 The present invention is directed towards a portable, light  
15 weight exercise assembly designed to facilitate the performance  
16 of a full range of body exercises in order to provide the  
17 desired exercise and resistance or stress to substantially all  
18 the major muscle groups of the body. In addition, the exercise  
19 assembly of the present invention and its associated components,  
20 offer sufficient resistance, when performing the above noted  
21 exercises, to satisfy the more sophisticated or dedicated  
22 exercise enthusiast, as well as the more casual user of exercise  
23 equipment.  
24  
25

1           More specifically, the portable exercise assembly of the  
2 present invention includes a base comprising a plurality of base  
3 segments selectively disposable relative to one another into  
4 either an operative position or a stored, collapsed position.  
5 In a first embodiment, the plurality of base segments comprise  
6 two base segments, each having an elongated configuration,  
7 wherein the operative position of the base is defined by the two  
8 base segments disposed in an end to end orientation. The  
9 aforementioned stored position is defined by the two base  
10 segments disposed in a collectively folded, overlying and  
11 substantially parallel relation to one another. The two base  
12 segments are disposable in either of the above noted positions  
13 due to the fact that correspondingly positioned ends thereof are  
14 hingedly or otherwise movably interconnected, so as to allow the  
15 selective orientation of the two base segments between the  
16 operative and stored positions.

17           The base of this first embodiment comprises a track  
18 assembly extending along at least a majority of the length  
19 thereof and being defined by each of said two base segments  
20 including two spaced apart beams, disposed in parallel relation  
21 to one another, and being separated along their respective  
22 length, by a channel. When the two base segments are disposed  
23 in the operative position, the channel and two beams of each  
24 base segment are disposed in an aligned, substantially parallel  
25 orientation relative to one another.

1           The base further comprises a first platform removably  
2           secured at any one of a plurality of positions along the length  
3           of the base, when in its operative position. The first platform  
4           is disposed and structured to engage and support different  
5           portions of the user's body, depending upon the particular  
6           exercise being performed. To this end, the first platform is  
7           preferably of sufficient length and width to provide adequate  
8           support and stability to various frontal and rear portions of  
9           the user's body, when performing the various exercises. An  
10          under-portion of the first platform is cooperatively structured  
11          with the aforementioned track assembly, such that the first  
12          platform can be removably secured to an outer exposed surface of  
13          the base, when in its operative position, and along the length  
14          thereof.

15          A trolley, may used as an optional component and is  
16          removably secured to the base and cooperatively structured with  
17          the track assembly so as to be slidable or otherwise movable  
18          along the length thereof. When the trolley is used, it is  
19          structured to supportingly engage, as well as possibly supply  
20          resistance to, the feet and/or lower legs of the user during the  
21          performance of certain exercises.

22          As an alternative embodiment to the trolley, the exercise  
23          assembly of the present invention includes an elongated bar,  
24          which may be removably connected to one or more of a plurality  
25          of elastic resistance elements. The elongated bar may further

1 include two spaced apart foot cushions each associated with a  
2 foot restraining strap. The feet of the user pass between the  
3 strap and the respective foot cushion, such that the bottom of  
4 the foot engages the foot cushion for purposes of comfort when  
5 the feet apply resistance against the bar and the upper or top  
6 portion of the foot engages the under portion of the restraining  
7 straps.

8 Another embodiment of the present invention comprises a  
9 base formed from a plurality of elongated segments removably  
10 attached to one another in an end-to-end relation, wherein each  
11 of the segments comprise a true linear configuration. More  
12 specifically, each of the elongated linear segments of this  
13 embodiment of the exercise assembly of the present invention is  
14 preferably formed from a high strength, relatively light weight  
15 material having a tubular construction. By way of example, each  
16 of the base segments could be formed of a metallic material  
17 tubing, having a square or multi-sided, cross-sectional  
18 configuration, which defines the aforementioned tubular  
19 construction. The base, when in its operative position defined  
20 by the plurality of segments attached in an end-to-end  
21 orientation, also has a true linear configuration along at least  
22 the majority of its length. However, at least one of the  
23 plurality of base segments includes an enlarged portion  
24 extending laterally outward from a central, longitudinal access  
25 of the base. The enlarged portion is more particularly defined

1 by a frame disposed in at least partially surrounding relation  
2 to a central opening. This enlarged portion serves to provide  
3 stability to the base when the base is disposed on a supporting,  
4 normally horizontally oriented surface, such as the floor or the  
5 like. In addition, the enlarged portion may provide support or  
6 attachment for a platform or cushion structure, disposable on  
7 the base, in overlying or attached relation to the enlarged  
8 portion, so as to support at least a portion of the user's body  
9 thereon. A restraining assembly, preferably in the form of two  
10 outstanding posts or stanchions, is removably secured to the  
11 base, substantially adjacent to the enlarged portion. The  
12 restraining posts are disposed and structured to engage and  
13 provide at least some, minimal resistance to various portions of  
14 the user's body while, the user performs exercises utilizing one  
15 or more elastic resistance elements, as described in greater  
16 detailed hereinafter.

17 Yet another embodiment of the present invention may be  
18 generally referred to as a "mini" exercise assembly and includes  
19 a mounting assembly structured to be removably attached in  
20 supported engagement on an upright, substantially vertically  
21 oriented supporting structure, such as but not limited to a  
22 door. Utilization of the mounting assembly in this manner  
23 negates the necessity of utilizing either of the aforementioned  
24 embodiments of the base in that an elastic resistance assembly  
25 is removably secured to one or more of a plurality of mounts,

1 removably secured to the door or like supporting structure. More  
2 specifically, each of the mounts are structured to engage  
3 predetermined portions of the supporting door or other  
4 supporting structure, such as along the upper and lower  
5 peripheral edges thereof. A gripping assembly is associated  
6 with this embodiment, as well as the other embodiments of the  
7 exercise assembly of the present invention and includes a  
8 plurality of retaining straps or like structures, which are  
9 removably attached to various portions of the user's body, such  
10 as the feet, ankles, hands, etc.

11 In each of the above set forth embodiments, the gripping  
12 assembly may be utilized so as to be gripped or otherwise  
13 similarly engaged by the hands or feet of the user for purposes  
14 of selectively positioning the resistance assembly between the  
15 aforementioned "stressed" position and the "non-stressed"  
16 position. In addition to the restraining straps or like  
17 structures as set forth above, the gripping assembly may include  
18 one or more, somewhat similarly structured, gripping bars  
19 removably attached to one end of the resistance assembly. Also  
20 two of the gripping bars may be used in combination with one  
21 another by connecting each of the bars to an opposite end of the  
22 resistance assembly. The versatility of the structure of the  
23 gripping assembly is such that its utilization with any of the  
24 embodiments of the base and/or the mounting assembly, may or may  
25 be not be incorporated into the performance of the various

1 exercises, primarily dependent on the desires of the user and/or  
2 the muscle groups intended to be exercised.

3 As in the majority of modern day exercise equipment, the  
4 exercise assembly of the present invention incorporates a  
5 resistance assembly. The resistance assembly of the present  
6 invention comprises, a plurality of elongated resistance  
7 elements, each of which are formed from an elastic material.  
8 Each of the resistance elements, when extended from a normal or  
9 relaxed position to an outwardly extended, stressed position,  
10 provides an intended or designated amount of resistance. The  
11 amount of resistance capable of being provided by the resistance  
12 assembly will depend upon the number of individual resistance  
13 elements being utilized at one time in the performance of  
14 individual ones of the plurality of exercises. Naturally, the  
15 location at which the resistance elements are attached to the  
16 base, mounting assembly and/or gripping assembly, as well as the  
17 number of resistance elements being utilized, is again dependent  
18 upon the particular exercise being performed and the particular  
19 muscle grouping being stressed.

20 Therefore, the various embodiments of the portable,  
21 exercise assembly of the present invention, are each structured  
22 to provide a complete body workout for body builders, as well as  
23 casual users of exercise equipment. Also, because of the  
24 ability to selectively position the base between the  
25 aforementioned stored position and operative position or

1 otherwise at least partially disassemble the various components  
2 of the exercise assembly, it is capable of being easily hand  
3 carried from location to location. Further, the structure of  
4 the operative components associated with the exercise assembly  
5 emphasizes and facilitates the ability of a user to perform all  
6 exercises which work most if not all of the major muscle groups.  
7 Such exercises include, but are not necessarily limited to: leg  
8 presses, leg extensions, alternate leg curls, bench  
9 presses/dips, pull-ups, military presses, rowing motion, arm  
10 curls, triceps extensions, alternate hamstring flexes, and sit-  
11 ups. Of course, the aforementioned listing of exercises is not  
12 meant to be inclusive of all the different types of exercises  
13 capable of being performed. To the contrary the aforementioned  
14 exercises are intended to be representative only of a large  
15 number of different exercises. The portable, exercise assembly  
16 of the present invention can also be used to perform a variety  
17 of other exercises which may be individualized or customized by  
18 the user for purposes of working parts of the body not  
19 necessarily associated with the major muscle groups.

20 These and other features of the present invention will  
21 become more clear when the drawings as well as the detailed  
22 description are taken into consideration.

#### 23 24 BRIEF DESCRIPTION OF THE DRAWINGS

25 For a fuller understanding of the nature of the present



1 invention, reference should be had to the following detailed  
2 description taken in connection with the accompanying drawings  
3 in which:

4 Figure 1 is side view of an exercise assembly of the  
5 present invention in an operative position.

6 Figure 2 is a side view of the embodiment of the exercise  
7 assembly of Figure 1 shown in a stored position.

8 Figure 3 is a top view of the embodiment of Figure 1.

9 Figure 4 is a bottom view of the embodiment of Figure 3.

10 Figure 5 is a front view of a plurality of resistance  
11 elements which collectively define a resistance assembly of the  
12 exercise assembly of the present invention.

13 Figure 6 is an elongated bar which may be used as a  
14 gripping bar or alternatively may be used to engage the feet of  
15 the user and therefore includes foot cushions with associated  
16 retaining strap.

17 Figure 7 is an end view, in detail, of a component of the  
18 embodiment of Figure 1.

19 Figure 8 is a connector structure associated with the  
20 embodiment of Figure 7.

21 Figure 9 is an additional structural feature associated  
22 with the embodiment of Figure 7.

23 Figure 10, 10A; 11, 11A; 12, 12A; 13, 13A; 14, 14A; and 15,  
24 15A are each top schematic views showing the exercise assembly  
25 of the present invention in combination with a user performing

1 a variety of different exercises.

2 Figure 16 is a top view of another embodiment of the  
3 resistance assembly of the present invention including a  
4 gripping bar, other than that shown in Figure 6.

5 Figure 17 is a front view of an elongated gripping bar,  
6 differing from the embodiments of Figures 6 and 16, which may or  
7 may not be used with a second gripping bar and which is capable  
8 of being gripped by the hands or engaged by the feet of the  
9 user.

10 Figure 18 is a top view of another embodiment of a base of  
11 an exercise assembly of the present invention differing from the  
12 embodiment of Figures 3 and 4.

13 Figure 19 is a perspective view of a composite of various  
14 components of the base of the embodiment of Figure 18 shown in  
15 disassembled form.

16 Figure 20 is a top view of the base of the embodiment of  
17 the Figure 19 shown in an operative position with a user  
18 exerting a force on a resistance assembly associated with the  
19 exercise assembly of the present invention.

20 Figures 21 through 24 are each perspective views of a user  
21 demonstrating the performance of a plurality of different  
22 exercises utilizing the base of the embodiment of Figure 18.

23 Figure 25 is yet another embodiment of the exercise  
24 assembly of the present invention shown in its operative  
25 position mounted on an upright, substantially vertically

oriented supporting structure.

Figure 26 is a portion of a gripping assembly associated with the embodiment of Figure 25.

Figure 27 is a front view of a mount associated with the embodiment of Figure 25.

Figure 28 is a front view of a pad associated with the embodiment of Figure 27.

Figure 29 is a perspective view of another embodiment of a mount associated with the embodiment of Figure 25.

Figure 30 is a pad associated with a retaining structure shown in Figure 31.

Figure 31 is a front view of a retaining structure removably attachable to various portions of the user's body.

Figure 32 is a composite view of a pair of handles of a gripping assembly used with the embodiment of the exercise assembly of Figure 25.

Figure 33 is a perspective view of a cushion which may be used in the performance of exercises utilizing the embodiment of Figure 25.

Like reference numerals refer to like parts throughout the several views of the drawings.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention relates to a portable exercise assembly which, in the embodiments of Figures 1 through 15, 15A,

1 is generally indicated as 10 and includes a base 12 designed to  
2 be supported on a floor or any other applicable supporting  
3 surface, generally but not necessarily, in a substantially  
4 horizontal orientation. The base 12 is capable of being  
5 selectively oriented in either an operative position, as shown  
6 in Figures 1, 3 and 4 or a stored position, as shown in Figure  
7 2.

8 More specifically, the base 10 comprises a plurality of  
9 base segments which, in the embodiment of Figure 1, preferably  
10 includes two base segments 14 and 16 each having a substantially  
11 elongated, preferably straight line configuration and which are  
12 movably connected to one another by one or more hinge structures  
13 18, or other applicable, movably interconnecting, structures.  
14 The hinge structures 18 allow the selected positioning of the  
15 base segments 14 and 16 relative to one another so that the base  
16 segments 14 and 16 may assume either the operative position of  
17 Figure 1 or the stored position of Figure 2. The operative  
18 position comprises both of the elongated base segments 14 and 16  
19 disposed in an end-to-end relation to one another, such that the  
20 correspondingly positioned ends 14' and 16' of each base  
21 segments 14 and 16 respectively, are disposed in immediately  
22 adjacent or contiguous relation to one another. Accordingly,  
23 when in the operative position, the entire base 12 assumes an  
24 elongated, configuration.

25 The length of each segment 14 and 16 may vary and may or

1 may not be substantially equal to one another. However, in the  
2 illustrated embodiment, the overall dimension and configuration  
3 of the base 12 is preferably such as to accommodate the  
4 supporting engagement with at least a portion of the user's  
5 body, dependent upon the exercise being performed, as best shown  
6 and more fully explained with reference to Figure 10, 10A  
7 through 15, 15A.

8 With primary reference to Figures 3 and 4, each base  
9 segment 14 and 16 may comprise two elongated, spaced apart beams  
10 20 and 21, which are secured to one another, in at least one  
11 embodiment, in substantially parallel relation by end braces 22.  
12 Other brace structures may be used to interconnect the  
13 respective beams 20 and 21 of each of the base segments 14 and  
14 16 in a manner which does not interfere with the utilization of  
15 the exercise assembly 10 or the performance of various exercises  
16 thereon. Accordingly, the structural configuration of each base  
17 segment 14 and 16, which incorporates the spaced apart beams 20  
18 and 21, serves to define a track assembly for the removable  
19 mounting and/or moveable positioning of a first platform 26 and  
20 a second platform 28, or elongated gripping bar 101 (See Figure  
21 17) thereon. More specifically, the track assembly comprises a  
22 channel 25 formed between each of the beams 20 and 21 of each  
23 base segment 14 and 16. The channel 25 communicates with the  
24 upper, exposed surface 15 of the base 12 as best shown in Figure  
25 3. Similarly, as shown in Figure 4, the elongated channel 25 of

1 each base segment 14 and 16 may also extend in communicating  
2 relation with and through the under surface 17 of the base 12 as  
3 shown in Figure 4. When the base 12 is in its operative  
4 position, the respective elongated channels 25 of each base  
5 segment 14 and 16 are disposed in aligned relation to one  
6 another, such that the channels 25 collectively extend along  
7 substantially the entire length, or at least a majority of the  
8 length, of the base 12. The width or transverse dimension of  
9 each of the channels 25 is sufficient to receive a mounting  
10 bracket 26' and 28', as best shown in Figures 1 and 7  
11 respectively, for the removable mounting and sliding travel or  
12 positioning, of the first and second platforms 26 and 28,  
13 respectively.

14 As is apparent from the accompanying Figures, the first  
15 platform 26 and the second platform 28 may vary in size and  
16 locations along the length of the base 12. The first platform  
17 26 is of a sufficient dimension and configuration to provide  
18 stable support for either a front or rear portion of the user's  
19 body, so as to facilitate proper orientation of a user while  
20 performing each of a plurality of different exercises. The  
21 second platform 28 may be an optional component and included in  
22 at least one embodiment. When utilized, the second platform 28  
23 comprises a portion of a trolley assembly generally indicated as  
24 30. The trolley assembly 30 includes a support frame 32 which  
25 may have a feet engaging portion 34, removably or fixedly

1       secured thereto, so as to engage the feet or lower legs and  
2       offer resistance for example, when performing leg presses. The  
3       feet engaging portion 34 and support frame 32 may be removed  
4       from the second platform 28 and the second platform 28 may be  
5       used for attachment to a portion of a resistance assembly 70 or  
6       70', to be described in greater detail hereinafter with  
7       reference to Figures 5 and 16. Further, the mounting bracket  
8       28' of the trolley assembly 30 is dimensioned and configured to  
9       slide along the length of respective ones of the channels 25,  
10      disposed between the beams 20 and 21, of one or both of the base  
11      segments 14 or 16. In order that the feet, ankles or other  
12      portions of the user's body may be secured to the platform 28  
13      and/or feet engaging portion 34, a retaining strap 40 may be  
14      mounted on the feet engaging portion 34 by means of connecting  
15      apertures 42. Alternatively, foot and/or ankle straps,  
16      preferably having a loop or annular configuration and generally  
17      indicated as 44, may be secured to the platform 28 so as to  
18      temporarily anchor or secure the foot or ankle to the second  
19      platform 28, or various other portions of the base 12.

20           As an alternative to the trolley assembly 30 and  
21      specifically the second platform 28, the exercise assembly of  
22      the present invention further contemplates the use of an  
23      elongated gripping bar of the type generally indicated as 80 in  
24      Figure 6 and 17. Gripping bar 80 includes two, spaced apart  
25      cushions 103 each having a foot and/or ankle restraining strap

89 mounted in spaced apart but cooperative relation thereto. The gripping bar 80 is dimensioned and configured to move relative to the support frame and along the length of either of or the base segments 14 and 16, such as by sliding over exposed surfaces of beams 20 and 21. Another embodiment of the gripping bar is indicated as 80' and shown in Figure 16. The elongated gripping bar 80' is designed to be removably attached to a resistance assembly comprising one or more resistance elements, using rings 85 and oppositely disposed retaining pins 86 as shown. As an alternative, either of the gripping bars 80 as shown in Figure 6 or 80' as shown in Figure 16 can be substituted for the gripping bar 101 shown in Figure 17, dependent upon the particular exercise intended to be performed by a user and also on whether the user intends to grip a particular gripping bar with his or her hands and/or engage the gripping bar with his or her feet. Regardless of the embodiment utilized, as will be explained in greater detail hereinafter, the gripping bar 80, 80' and 101 are structured to define a gripping assembly, wherein the various gripping bars are intended to be engaged or otherwise "gripped" by various portions of the user's body, including the hands, ankle, feet, etc. Each of the gripping bars are removably connected to the resistance assembly 70 in a manner which allows the selective positioning or movement of the resistance assembly 70 between a stressed position and a non-stressed position.



Also with reference to Figures 3 and 4, it should be noted that in the embodiment of Figure 3 a plurality of connectors 90 primarily in the form of eyebolts may be removably inserted into the sides of either of the beams 20 and 21 and attached at any number of locations along the base segments 14 and 16. The connectors 90 are used to attach one end of one or more elastic resistance elements which define part of the resistance assembly 70, as will be described in greater detail hereinafter. As an alternative embodiment another means of connecting a plurality of elastic resistance elements 72, 73, 75, etc. defining the resistance assembly 70, to the base segments 14 and 16 includes the provision of an elongated slide bar 120 disposed in transverse relation and in interconnected engagement with each of beams 20 and 21. The slide bar 120 includes a plurality of apertures 125 disposed in spaced relation to one another and extending along each end. The apertures 125 are used to connect a plurality of elastic resistance elements 72, 73, 75 to the slide bar 120 in spaced relation to one another. The slide bar 120 can be positioned at various locations along the length of the base segments 14 and 16 and interconnecting somewhat transverse relation to the beams 20 and 21 through the provision of aligned pairs of elongated slots 122. The slots 122 may be disposed in spaced relation to one another and at various locations along the entire length of either of the base segments 14 and 16. Other structural components associated with the

1 exercise assembly 10 of the present invention include a shoulder  
2 restraint 50 comprising two elongated dowels 53 each having one  
3 end at least partially surrounded by a padding 55 and the  
4 opposite end 53' dimensioned and configured to fit within  
5 appropriately disposed apertures 57 formed at a plurality of  
6 different locations along the length of each of the base  
7 segments 14 and 16. The apertures 57 are dimensioned to be at  
8 least minimally greater than the transverse dimension of the  
9 opposite end 53' of the dowels 53. In addition, a head rest 54  
10 may be removably secured to the base 12 at various locations  
11 along the length thereof, so as to extend upwardly and outwardly  
12 from the upper exposed surface 15 in an orientation to support  
13 the head of a user. The head rest 54 is frequently, but not  
14 exclusively, used when the shoulders of the user are disposed in  
15 engagement with the shoulder restraint 50, as clearly shown in  
16 Figures 10, 10A. In addition to the above, a stability  
17 structure is provided in the form of grips 60 which include an  
18 elongated pin 62, dimensioned to be removably inserted within  
19 appropriate openings or apertures 64, preferably formed at one  
20 or more locations along the side of the base 12. The opposite  
21 ends of pins 62 may include a grip structure 66 disposed and  
22 configured to facilitate the gripping thereof by the user, when  
23 the user is performing certain exercises.

24 Another feature of the present invention is shown in  
25 different embodiments, in Figures 5, 16 and 17, comprises the

1 resistance assembly generally indicated as 70. In the  
2 embodiment of Figure 5, the resistance assembly 70 comprises a  
3 plurality of elongated resistance elements 72, 73, and 75 each  
4 formed of an elastic material and normally disposed in a relaxed  
5 non-stressed position, as represented. However, upon stretching  
6 or extending each of the resistance elements 72, 73, and 75, a  
7 predetermined resistance will be provided such as when a first  
8 end 76 of each of the resistance elements is anchored or  
9 otherwise removably connected to the base, by means of one of a  
10 plurality of connectors 90 or the aforementioned slide bar 120.  
11 The connectors 90 may assume a variety of structural  
12 configurations, such as an annulus or ring formed on an exposed  
13 end thereof. The opposite end 78 of each of the resistance  
14 elements 72, 73, and 75 is connected to a gripping assembly  
15 including one of a plurality of gripping bars 80, 80' and/or 101  
16 dependent upon the various exercises being performed.  
17 Typically, the resistance assembly 70, as shown in Figure 5,  
18 comes in two sets, wherein each set comprises an equal number,  
19 which of course may vary, of resistance elements 72, 73, and 75,  
20 so as to provide a balanced or symmetrical resistance when  
21 performing the various exercises. Obviously one or more of the  
22 resistance elements 72, 73, and 75 may be used at the same time  
23 and each of the various resistance elements may be structured to  
24 offer a different amount or degree of resistance. More  
25 specifically, the individual ones of the resistance elements 72,

1 73, and 75 may be structured to provide a different resistance  
2 when extended from their non-stressed to their stressed or  
3 stretched orientation. As indicated in Figure 5 and by way of  
4 example, the various resistance elements 72, 73, and 75, may be  
5 specifically structured to provide a resistance of fifteen  
6 pounds (15 lb.), thirty pounds (30 lb.) and sixty pounds (60  
7 lb.), respectively. Also it should be noted that each of the  
8 opposite first and second ends 76 and 78 may each include a  
9 snap-type connector 79 or a connecting ring as at 81.

10 The embodiments of Figures 16 and 17 disclose a structural  
11 variation of the resistance assembly 70, therein indicated as  
12 70' and comprising a plurality of resistance elements 72', 73'  
13 and 75', as well as an additional element 77, each being formed  
14 of an elastic material and offering a different or equal amount  
15 or resistance when forced from a normally non-stressed position,  
16 as shown in Figure 16, to a stressed or stretched position (not  
17 shown). In the embodiment of Figure 16, the gripping bar 80'  
18 may be used when the user engages gripping bar 80' with his  
19 hands. In the embodiment of Figure 17, the gripping bar 101 is  
20 intended to be engaged by the feet and/or ankles by the user,  
21 which engage the cushions 103' and are removably secured in  
22 engagement with the gripping bar 101 through the retaining  
23 straps 105. When utilizing either of the bars 80' or 101, the  
24 resistance assembly 70' is removably attached thereto. More  
25 specifically, the connectors 85 are secured in the position

1 shown in Figure 16 and 17 by correspondingly disposed spaced  
2 apart locking pins 86. The opposite ends of each of the  
3 resistance elements 72', 73', 75' and 77 are fixedly secured to  
4 one another as at 87, and the collectively secured ends 87 may  
5 be attached to the base 12 and/or other anchoring structure by  
6 adjustable and removably connected chain members 88. When it is  
7 desired to remove one or more of the resistance elements, such  
8 as resistance element 77, in order to lessen or otherwise vary  
9 the resistance, when the connector ring 85, associated with the  
10 resistance element 77, is removed from the gripping bar 80'.  
11 Once detached, the connector ring 85 remains detached or is  
12 otherwise retained by the chain 88 in the area of the  
13 collectively secured ends 87 of the resistance elements as  
14 shown. This eliminates the need and necessity of connecting or  
15 disconnecting each of the opposite ends 76 and 78 of the  
16 individual resistance elements 72, 73, and 75, of the embodiment  
17 of Figure 5. As shown, in the embodiment of Figure 16 the  
18 resistance assembly 70' may be connected by the adjustment chain  
19 88 and quick release snap-type connector 88' to the base 12 by  
20 means of eyebolt connectors 90. However, in the embodiment of  
21 Figure 17, the resistance assembly 70' may be connected between  
22 gripping bar 80 and gripping bar 101, both of which are engaged  
23 by different portions of the user's body such that the  
24 resistance assembly 70', including the plurality of resistance  
25 element 72', 73', 75' and 77 are repeatedly disposed between

1 their stressed position and non-stressed position. Further,  
2 depending upon the orientation of the user, a head rest as at  
3 54' may be utilized to support the head or neck area of the  
4 user.

5 With reference to Figures 10, 10A through 15, 15A, a user  
6 is schematically represented on the exercise assembly 10 in the  
7 performance of a variety of exercises. It is emphasized that  
8 while the structural embodiments of the exercise assembly 10 are  
9 represented as using the aforementioned connectors 90, the slide  
10 bar 120 could be substituted for connectors 90, where  
11 applicable. It is further emphasized that the exercises  
12 schematically represented in Figures 10, 10A through 15, 15A are  
13 representative only, of some of the numerous exercises that may  
14 be performed utilizing the exercise assembly 10 of the present  
15 invention. More specifically, in Figures 10, 10A a user 100  
16 exerts a downward force on the gripping bar 80 as one or more of  
17 the resistance elements of the resistance assembly 70 are  
18 connected by the aforementioned connectors 90 to an upper end or  
19 portion of the base 12. Further, during this exercise the  
20 shoulder restraint 50 serves to anchor and stabilize the  
21 position of the user 100, while his head may be further  
22 supported by the head cushion 54.

23 Figure 11 and 11A show the orientation of the user 100  
24 holding the gripping bar 80 and having his feet anchored or  
25 stabilized as they engage the second platform 28 and or the

1 trolley assembly. The resistance assembly 70 is interconnected  
2 between connectors 90 located at the opposite ends of the base  
3 12, relative to their position in Figures 10, 10A. Figures 12  
4 and 12A have the user 100 arranged in a substantially identical  
5 orientation to that of Figures 11, 11A, wherein the user serves  
6 to exert a force on the gripping bar 80, which may be more  
7 specifically defined as a pull-up. Again it is shown that the  
8 resistance assembly 70 is anchored at the end of the base 12 as  
9 the feet of the user 100 are secured or stabilized by the second  
10 platform 28.

11 Figures 13 and 13A represent the user 100 performing  
12 alternate hamstring flexes, as the resistance assembly 70 is  
13 secured at one end to the base 12 by connectors 90. Their  
14 opposite ends are secured to the feet or ankle portions of the  
15 user 100, utilizing straps 44, as discussed above and disclosed  
16 in Figure 9. Also during the performance of this exercise the  
17 hand grips 60 are utilized to provide additional stability in  
18 the orientation or positioning of the user 100 in performing  
19 this exercise. Although not specifically shown, a variation of  
20 the exercise as shown in Figures 13 and 13A may be performed  
21 utilizing the elongated bar 80 of Figure 6 rather than the  
22 individual foot restraining loops 44 attached to the feet of the  
23 user as represented. When using the bar 80 or a structural  
24 modification thereof, the user's feet can be fitted between the  
25 foot cushions 87 and the respective restraining straps 89, such

1 that the elastic resistance element 70 are secured to the  
2 connectors 90' shown in Figure 6.

3 Figure 14 and 14A shows the user 100 performing alternate  
4 leg curls, wherein the feet of the user 100 are secured to one  
5 end of the resistance assembly 70 and the opposite ends thereof  
6 are secured to spaced apart portions of the base 12 by  
7 connectors 90. The shoulder restraint 50 is utilized to further  
8 stabilize the position or orientation of the user 100 during the  
9 performance of the aforementioned exercise. Further, as yet  
10 another alternative embodiment, the exercise assembly 10 allows  
11 the user to perform "upright" leg curls rather than the  
12 alternate leg curls as set forth above. When performing the  
13 upright leg curls, the heels of the user are effectively locked  
14 underneath or in grippingly engagement with an elongated bar of  
15 the type either shown in Figures 6 of 16. In practice, the heels  
16 of the user engage the bar 80, and the user is reclined on his  
17 or her back. The feet, along with the bar 80 having the  
18 resistance elements attached thereto, are moved towards the  
19 torso of the user, such that the knee extends upwardly from the  
20 base segments 14 and 16.

21 Figures 15 and 15A shows the user 100 performing a sit-up  
22 type exercise, wherein the feet and/or ankles are stabilized by  
23 means of the strap 44, secured to the second platform 28 while  
24 the user's back is engaged and supported by the first platform  
25 26.



1           As shown in Figure 18 through 24, the exercise assembly of  
2           the present invention comprises another embodiment which  
3           includes a base generally indicated as 110 having a  
4           substantially linear configuration along a majority of its  
5           length. More specifically, the base 110 comprises a plurality  
6           of elongated segments 112, 114, and 116, each having a  
7           substantially linear configuration extending along a majority of  
8           their respective lengths, wherein the base segments 112, 114,  
9           and 116 are selectively separable as shown in the composite view  
10          of Figure 19 or are removably attached in an end-to-end, coaxial  
11          relation to one another as shown in Figure 18 and 20. Each of  
12          the base segments 112, 114, and 116 are formed from a high  
13          strength, substantially light weight material which preferably  
14          include a tubular construction. Therefore, the transverse  
15          dimension of the various base segment 112, 114, and 116 may vary  
16          such that they may be telescopically interconnected to one  
17          another at their correspondingly position ends. In addition,  
18          mounting brackets as at 118 may be removably secured to the base  
19          110 along its length and to any or all of the base segments 112,  
20          114 and 116. As further demonstrated in Figure 20 the  
21          connecting brackets 118 are used to removably attach the various  
22          elastic, resistance elements of the resistance assembly 70' to  
23          various portions or locations along the length of the base 110.

24               The base 110 and particularly at least one of the plurality  
25               of segments such as base segment 116 includes an enlarged

1 section 130. The enlarged section is at least partially  
2 defined by a frame 12 which is integrally or otherwise fixedly  
3 secured to the remainder of the base segment 116 and which also  
4 preferably includes the aforementioned tubular construction. The  
5 frame 132 is disposed in at least partially surrounding relation  
6 to a central opening 134. In addition by virtue of its  
7 configuration, the frame 132 extends laterally outward from both  
8 sides of the base 110 such that the central opening 134 is  
9 sufficiently dimensioned to add stability to the base 110, such  
10 as when it is in the operative position shown in Figures 20 and  
11 22 through 24. In addition, the dimension of the central  
12 opening 134 should be sufficient to allow a portion of a user's  
13 body, such as the user's head to extend therethrough, as  
14 demonstrated in Figure 21, in order to facilitate the user  
15 performing a "bench press" exercise while remaining in a  
16 substantially upright, sitting position. In addition, the  
17 enlarged portion 132, may also be used as a support structure for  
18 a pad or platform (not shown) on which a portion of the user's  
19 body 100 is positioned, while performing the various exercises  
20 as at least partially demonstrated in Figures 20, 23, and 24.

21 Other structural features of the base as shown in Figures  
22 18 through 24 include the provision of a restraining assembly at  
23 least partially defined by one or more upstanding posts or  
24 stanchions 136, removably or fixedly connected to the base 110  
25 substantially adjacent to the enlarged portion 130. In the

1 embodiment of Figure 19 the restraining posts 136 are secured  
2 directly to the frame 132. In addition, elongated pads or  
3 cushions 138 may be provided so as to be removably attached in  
4 overlying, covering relation to the posts 136 so as to provide  
5 additional comfort to the user. As shown in Figures 20, 23, and  
6 24 the posts 136 may engage and at least partially restrain  
7 different portions of the user's body, such as the shoulders  
8 (Figures 20 and 23) and/or the legs or thigh areas (Figure 24).  
9 Also as demonstrated in Figure 22, the posts 136 may be engaged  
10 by the feet of the user 100 as the user 100 exerts a pulling  
11 force on the resistance assembly 70', by means of a gripping bar  
12 101.

13 The exercise assembly of the present invention further  
14 includes yet another embodiment as shown in Figures 25 through  
15 31 and which may be generally referred to as a "mini assembly"  
16 in that various structural components comprising this embodiment  
17 can be utilized without the need of either base 10 or 110 as  
18 described above. Further, the "mini assembly" further  
19 emphasizes the versatility and portable nature of the exercise  
20 assembly of the present invention, by virtue of it being easily  
21 and efficiently transported by being hand carried or by being  
22 carried in some type of kit or container which is supported on  
23 the user's body when being transported.

24 More specifically, the embodiment of Figures 25 through 31  
25 comprises a mounting assembly generally indicated as 140 and

1 comprising a plurality of mounts 142 and 144 respectively  
2 structure to removably engage and be supported on and upright  
3 supporting structure 150 such as a door or like object normally  
4 disposed in a substantially vertical orientation as shown in  
5 Figure 25. The mount 142 is preferably in the form of a u-  
6 shaped clamp and includes two outwardly extending connecting  
7 brackets 146 onto which one or more elastic resistance elements  
8 72, 73, etc. may be removably secured. The clamps 142 are  
9 structured to be supported in overlying engaging relation to an  
10 upper peripheral edge 150' of the supporting structure or door  
11 150. Conversely, the mount 144 is preferably in the form of an  
12 L-shaped bracket structured to be disposed in confronting  
13 engagement with one surface 151 of the supporting structure or  
14 door 150, adjacent to the lower peripheral edge 150". Each of  
15 the one or more L-shaped mounts 144 includes a flexible material  
16 connector or attachment member 148 which may be disposed to  
17 extend beneath the lower peripheral edge 160" such that the  
18 outer end thereof 149 is removably attached to one or more of  
19 the elastic resistance elements 72, 73, etc. The opposite end  
20 of the resistance elements 72, and 73 may be removably connected  
21 to the gripping bar 107' which also may define a part of the  
22 aforementioned gripping assembly as shown and is represented in  
23 Figure 26. In order to prevent damage to the supporting  
24 structure 150, appropriately positioned pads or cushions 160 may  
25 be disposed between the u-shaped clamp or mount 142 and the

1 upper peripheral edge 150' of the supporting structure or door  
2 150. Other structural components associated with the exercise  
3 assembly of the embodiment of Figures 25 through 31 include a  
4 body restraining portion 162 in the form of a strap, belt, etc.,  
5 which is designed to removably surround and engage the hands,  
6 ankles, feet or other portions of the user's body. In addition  
7 a pad or cushion 164 may be utilized to overly the skin or  
8 surface area of the portion of the user's body engaged by the  
9 restraining strap 162. Also, one or more handles 166 each having  
10 a connector 90" may be used to engage the free ends of the  
11 various resistance elements 72 or 73 instead of the gripping bar  
12 107'. Finally, a head cushion 54' may be utilized to add  
13 comfort and also possibly protect the user's head and/or neck  
14 area and may be applied in a position similar to that shown in  
15 Figure 17, dependent primarily on exercise being performed by  
16 the user.

17 It is again emphasized that regardless of which of the  
18 embodiments of the exercise assembly, as shown in Figures 1  
19 through 31, are utilized, substantially a full range of  
20 exercises may be performed, wherein such exercises include, but  
21 are not limited to, leg extensions, leg presses, military press,  
22 rowing, arm curl, bench press/dip, pull ups, sit ups, hamstring  
23 flexes and others.

24 Since many modifications, variations and changes in detail  
25 can be made to the described preferred embodiment of the

1 invention, it is intended that all matters in the foregoing  
2 description and shown in the accompanying drawings be  
3 interpreted as illustrative and not in a limiting sense. Thus,  
4 the scope of the invention should be determined by the appended  
5 claims and their legal equivalents.

6 Now that the invention has been described,

1     What is claimed is:

2             1.     An exercise assembly structured to facilitate a user  
3 performing multiple exercises thereon, said exercise assembly  
4 comprising:

5                 a)     a base including a plurality of base segments  
6 secured in coaxial relation to one another and collectively  
7 defining a substantially elongated linear configuration,

8                 b)     a resistance assembly removably attached to said  
9 base at any one of a plurality of locations along the length of  
10 said base,

11                c)     said resistance assembly repeatedly oriented  
12 between a stressed position and a non-stressed position, and

13                d)     a gripping assembly connected to said resistance  
14 assembly and selectively positioned by the user to orient  
15 resistance assembly between said stressed and non-stressed  
16 positions.

17             2.     An exercise assembly as recited in claim 1 wherein  
18 said plurality of base segments are removably attached to one  
19 another in an end-to-end alignment.

20             3.     An exercise assembly as recited in claim 1 wherein  
21 each of said base segments are removably attached to one another  
22 in an end-to-end alignment, each of said base segments  
23 comprising an elongated linear configuration along at least a  
24 majority of its length.

25             4.     An exercise assembly as recited in claim 3 wherein

1 each of said base segments is formed of a high strength, light  
2 weight material of tubular construction.

3 5. An exercise assembly as recited in claim 2 wherein  
4 said plurality of base segments are removably attached to one  
5 another in an end-to-end alignment.

6 6. An exercise assembly as recited in claim 5 wherein  
7 said plurality of base segments are formed from a material of a  
8 sufficiently light weight to be carried by the user when said  
9 base segments are detached from one another.

10 7. An exercise assembly as recited in claim 1 wherein at  
11 least one of said base segments comprises an enlarged section  
12 extending laterally outward from said base.

13 8. An exercise assembly as recited in claim 7 wherein  
14 said enlarged portion comprises a frame disposed in at least  
15 partially surrounding relation to a central opening, said  
16 central opening being of sufficient dimension to allow the  
17 user's head to pass therethrough.

18 9. An exercise assembly as recited in claim 8 further  
19 comprising a restraint structure secured to said base  
20 substantially adjacent to said enlarged portion, said restraint  
21 structured disposed in restraining engagement with any one of a  
22 plurality of portions of the user's body.

23 10. An exercise assembly as recited in claim 1 wherein  
24 said resistance assembly comprises a plurality of elongated  
25 elastic material resistance elements having a first end secured



1 to said base and a second end removably connected to said  
2 gripping assembly, the first end of a predetermined number of  
3 said plurality of resistance elements secured together and  
4 collectively and removably attached to said base.

5 11. An exercise assembly as recited in claim 10 wherein  
6 said second end of said predetermined number of said plurality  
7 of resistance elements are each independently removable from  
8 said gripping assembly.

9 12. An exercise assembly as recited in claim 11 wherein  
10 each of said second ends include a mounting member dimensioned  
11 and configured for removal engagement with said gripping  
12 assembly.

13 13. An exercise assembly as recited in claim 12 wherein  
14 said gripping assembly comprises at least one gripping bar  
15 having an elongated configuration.

16 14. An exercise assembly as recited in claim 13 wherein  
17 said gripping bar comprises a plurality of cushions mounted on  
18 said bar, each of said cushions including a retaining member  
19 disposed in cooperative relation thereto, each of said retaining  
20 members structured to engage a portion of the user's body during  
21 movement of said gripping bar relative to said base.

22 15. An exercise assembly as recited in claim 14 further  
23 comprising a roller structure rotationally mounted on said  
24 gripping bar and disposed in movable engagement with a  
25 supporting surface.

1           16. An exercise assembly as recited in claim 1 wherein  
2 said plurality of base segments are removably attached to one  
3 another in an end-to-end alignment, each of said base segments  
4 comprising an elongated linear configuration along at least a  
5 majority of its length, at least one of said base segments  
6 comprising an enlarged section extending laterally outward from  
7 said base, said enlarged section comprising a frame disposed in  
8 at least partially surrounding relation to a central opening of  
9 said enlarged section.

10           17. An exercise assembly as recited in claim 16 wherein  
11 said resistance assembly comprises a plurality of elongated  
12 elastic material resistance elements each having a first end  
13 secured to said base and a second end removably connected to  
14 said gripping assembly, said first end of a predetermined number  
15 of said plurality of resistance elements secured together and  
16 collectively and removably attached to said base.

17           18. An exercise assembly as recited in claim 17 wherein  
18 said gripping assembly comprises at least one gripping bar  
19 having an elongated configuration and a plurality of cushions  
20 mounted thereon, each of said cushions including a restraining  
21 member disposed in cooperative relation thereto, each of said  
22 restraining members structured to engage a portion of the user's  
23 body, said gripping bar further comprising a roller structure  
24 rotationally mounted thereon and selectively disposable in  
25 movable engagement with a supporting surface.

1           19. An exercise assembly structured to facilitate a user  
2 performing multiple exercises thereon, said exercise assembly  
3 comprising:

4           a) a mounting assembly removably secured to an  
5 upright supporting structure disposed in a substantially  
6 vertical orientation,

7           b) a resistance assembly removably attached to said  
8 mounting assembly at a plurality of locations on the supporting  
9 structure,

10           c) said resistance assembly repeatedly oriented  
11 between a stressed position and a non-stressed position,

12           d) a gripping assembly removably connected to said  
13 resistance assembly and selectively positioned by the user to  
14 orient said resistance assembly between said stressed and non-  
15 stressed position.

16           20. An exercise assembly as recited in claim 19 wherein  
17 said resistance assembly comprises a plurality of elongated  
18 elastic material resistance elements having a first end secured  
19 to said mounting assembly and a second end movably connected to  
20 said gripping assembly.

21           21. An exercise assembly as recited in claim 20 wherein  
22 said gripping assembly comprises a plurality of retaining  
23 structures removably mounted on predetermined portions of the  
24 user's body and removably connected to a predetermined number of  
25 said resistance elements.

1           22. An exercise assembly as recited in claim 20 wherein  
2 said gripping assembly comprises at least one handle structure  
3 gripped by the user's hand and removably attached to a  
4 predetermined number of said resistance elements.

5           23. An exercise assembly as recited in claim 20 wherein  
6 said gripping assembly comprises at least one gripping bar  
7 having an elongated configuration and comprising a plurality of  
8 cushions mounted on said bar, each of said cushions including a  
9 retaining member disposed in cooperative relation thereto, each  
10 of said retaining members structured to engage a portion of the  
11 user's body during movement of the bar.

12           24. An exercise assembly as recited in claim 23 including  
13 a roller rotationally mounted on said gripping bar in movable  
14 engagement with a supporting surface.

15           25. An exercise assembly as recited in claim 20 wherein  
16 said mounting assembly comprises a plurality of mounts each  
17 removably securable to a door, wherein the door comprise an  
18 upright supporting structure.

19           26. An exercise assembly as recited in claim 25 wherein  
20 said plurality of mounts comprise at least one clamp removably  
21 secured to an upper peripheral edge of the door and removably  
22 connected to one end of a predetermined number of said  
23 resistance elements.

24           27. An exercise assembly as recited in claim 26 wherein  
25 said plurality of resistance elements are connected to said

1 clamp on each opposite side of the door.

2 28. An exercise assembly as recited in claim 25 wherein  
3 said plurality of mounts comprise at least one bracket structure  
4 removably secured to a lower peripheral edge of the door, said  
5 bracket structure removably interconnected to a predetermined  
6 number of said resistance elements.

7 29. An exercise assembly as recited in claim 28 wherein  
8 said bracket structure comprises a flexible material connector  
9 secured thereto and extending beneath the lower peripheral edge  
10 of the door into removable attachment with a predetermined  
11 number of said plurality of said resistance elements.

12 30. An exercise assembly structured to facilitate a user  
13 performing multiple exercises thereon, said exercise assembly  
14 comprising:

15 a) a resistance assembly structured to be repeatedly  
16 oriented between a stressed position and a non-stressed  
17 position,

18 b) a gripping assembly connected to said resistance  
19 assembly and selectively positioned by the user to dispose said  
20 resistance assembly between said stressed and non-stressed  
21 positions,

22 c) a resistance assembly comprising a plurality of  
23 elongated elastic material resistance elements having a first  
24 end secured to said gripping assembly, and

25 d) said gripping assembly comprising at least one

1 gripping bar having an elongated configuration and comprising a  
2 plurality of cushions mounted on said bar, each of said cushions  
3 including a retaining member disposed in cooperative relation  
4 thereto, each of said retaining member structured to engage a  
5 portion of the user's body during predetermined movement of the  
6 bar by the user.

7 31. An exercise assembly as recited in claim 30 further  
8 comprising a roller structure rotationally mounted on said one  
9 bar and movably engaging a supporting surface.

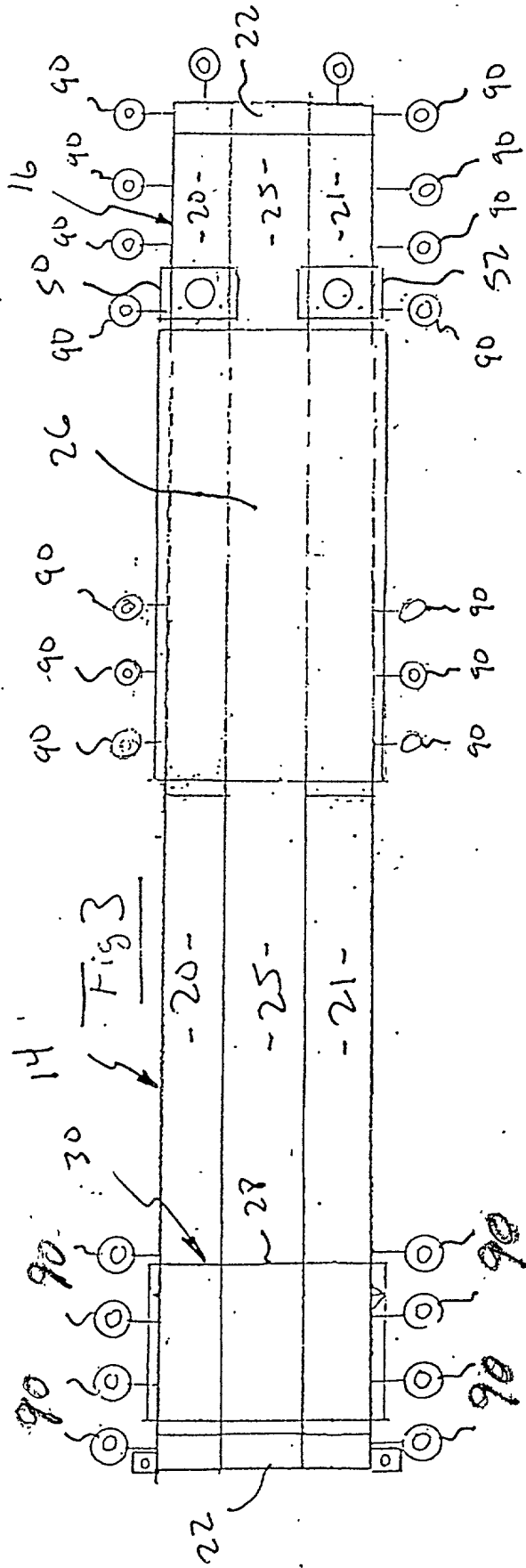
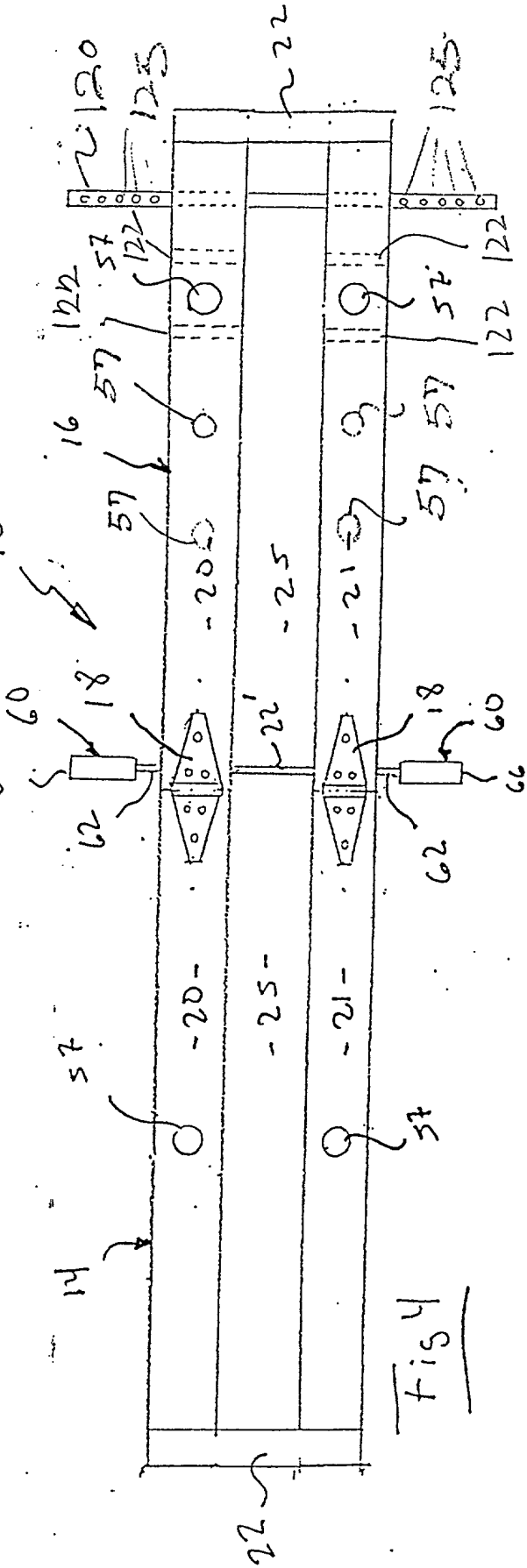
10 32. An assembly as recited in claim 31 wherein said first  
11 end of a predetermined number of said plurality of resistance  
12 elements are secured together and collectively and removably  
13 attached to said one bar, said second end of said predetermined  
14 number of said plurality of resistance elements each  
15 independently removal from an accessible, manipulable position  
16 by the user.

17 33. An exercise assembly as recited in claim 32 wherein  
18 said gripping assembly further comprises a second elongated bar  
19 removably attachable to said plurality of resistance elements  
20 and disposed in engaging relation with various portion of the  
21 user's body.

22 34. An exercise assembly as recited in claim 33 wherein  
23 each of said second ends of said plurality of resistance  
24 elements include a mounting member dimensioned and configured  
25 for removal engagement with said second bar.

ABSTRACT OF THE INVENTION

A portable exercise assembly structured to facilitate the performance of multiple exercises by a user, thereon and including a base and/or a mounting assembly either of which are capable of being selectively positioned between an operative position and a stored position and, when in the stored position are capable of being easily hand carried, with other associated components of the exercise assembly. When in the operative position, the base comprises a plurality of segments disposed in an end-to-end, elongated orientation. A resistance assembly comprising a plurality of resistance elements, preferably formed of an elastic material is connected to the base and/or to the mounting assembly as well as to a gripping assembly which is either attachable to various portions of the user's body or may be at least partially gripped by the user, such that the user exerts a force thereon so as to position the plurality of elastic elements between a stressed position and a non-stressed position, thereby exerting a variable range of forces on muscle group which are intended to be exercise. The gripping assembly includes one or more gripping bars having one or more cushions mounted thereon each having a retaining member, which comfortably and removably retains engagement with various portions of the user's body while the user selectively extends or retracts the plurality resistance elements.





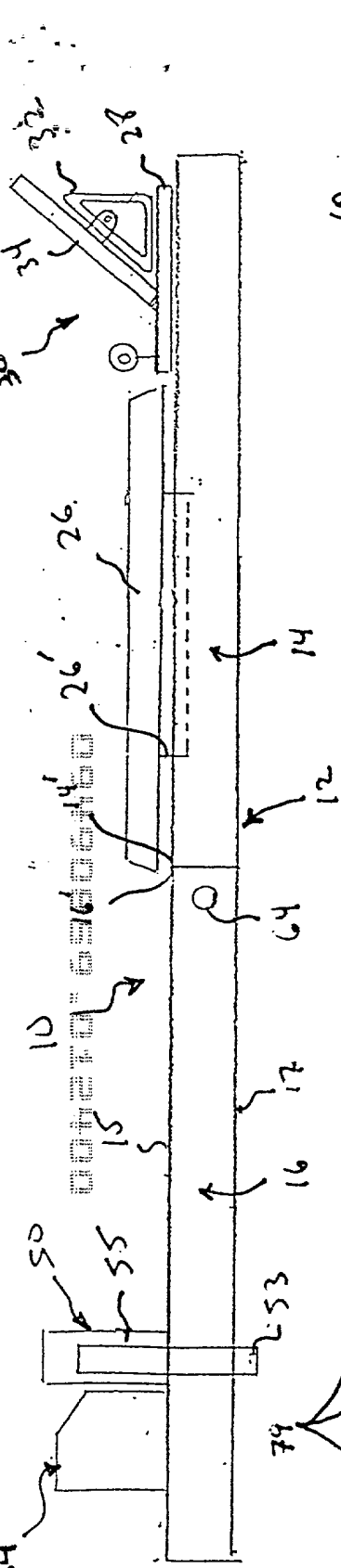


Fig. 1

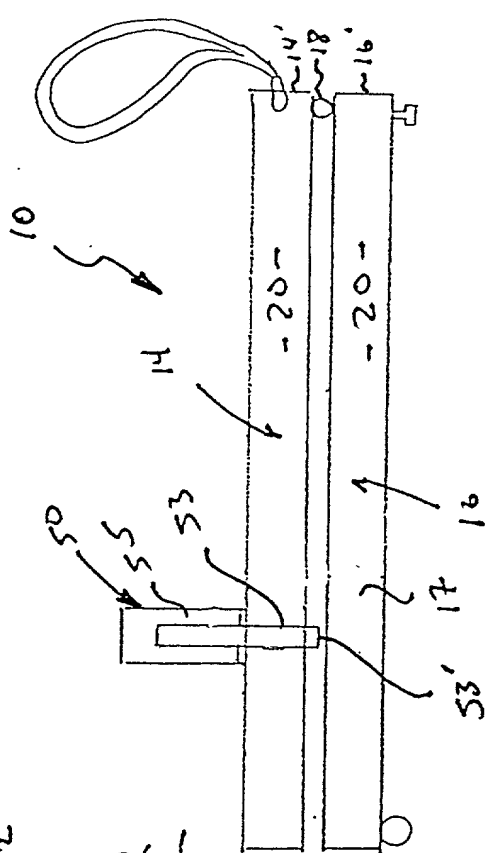


Fig. 2

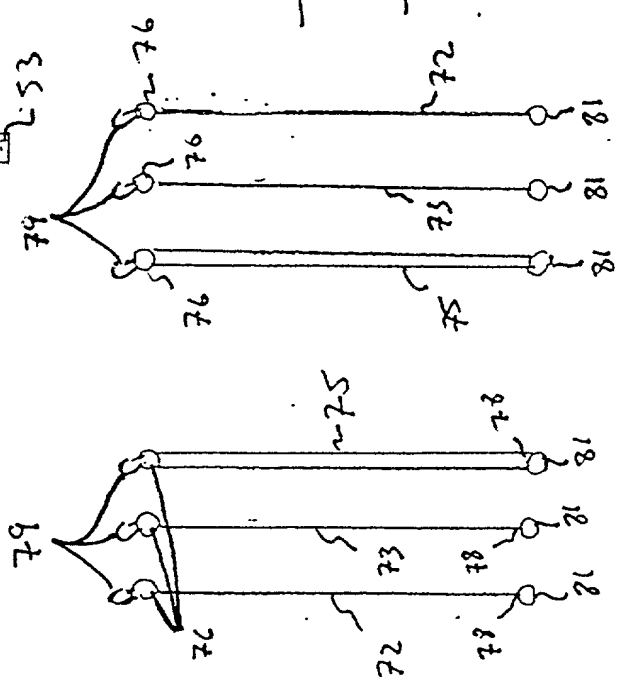


Fig. 3

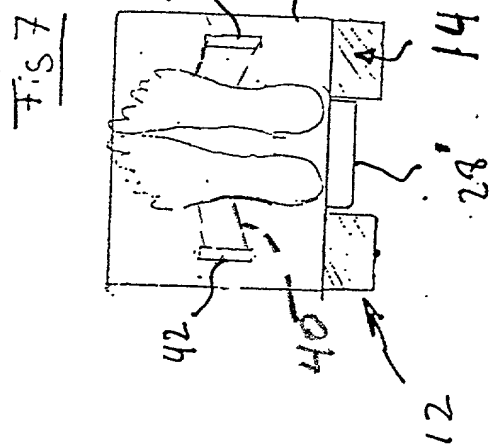


Fig. 4

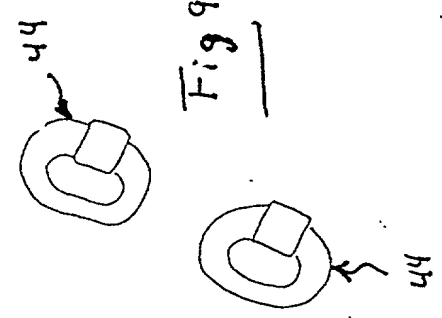


Fig. 5

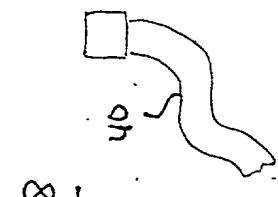


Fig. 6

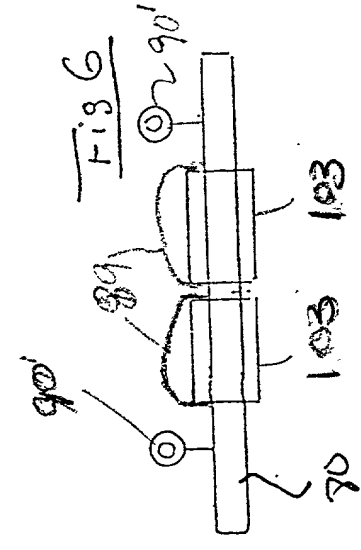


Fig. 7

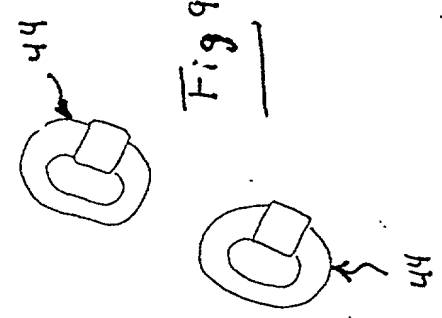


Fig. 8

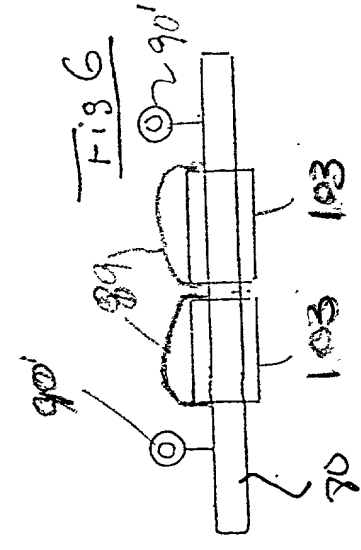
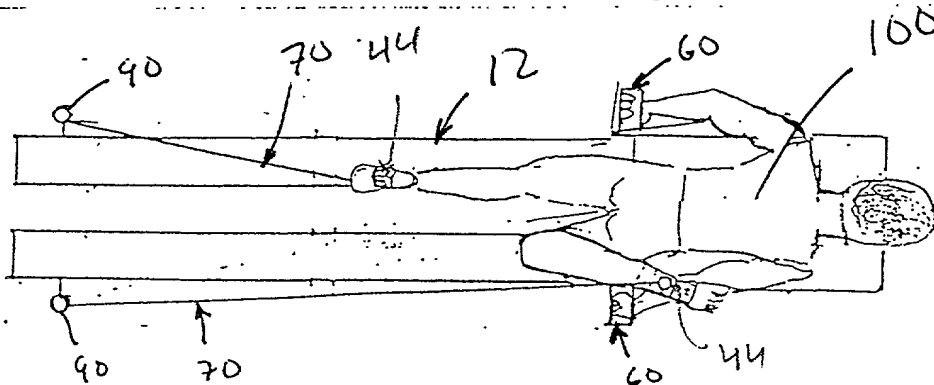
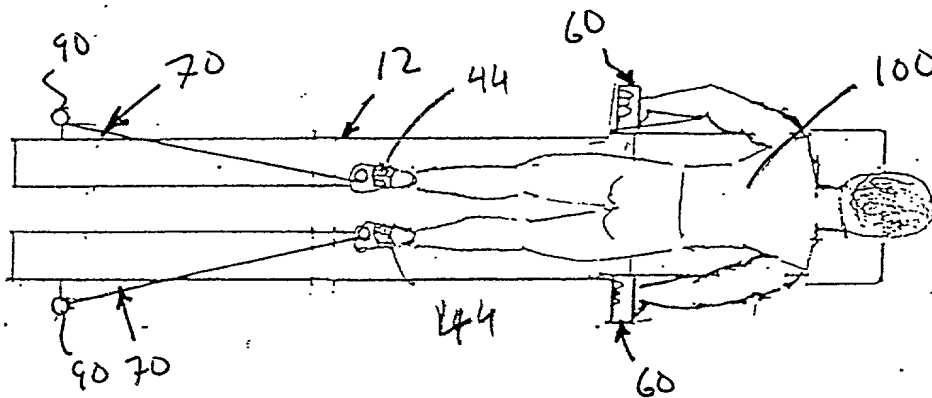
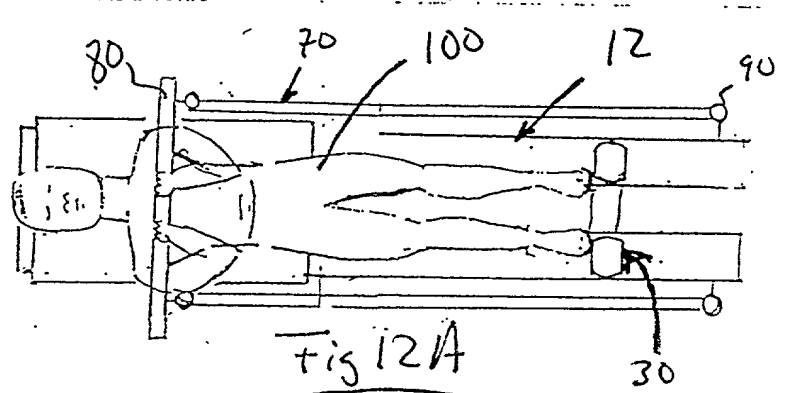
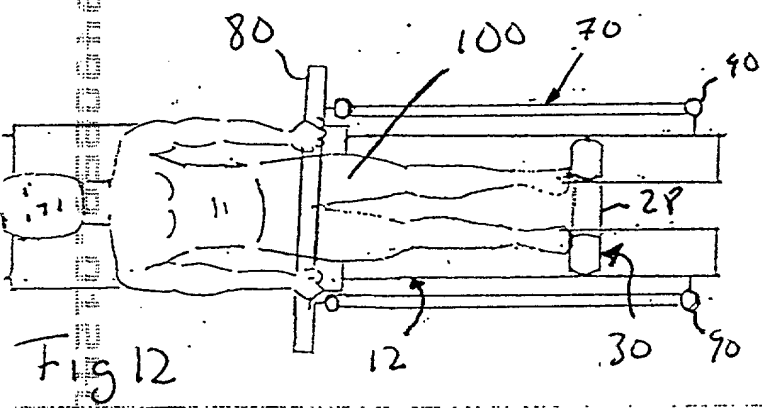
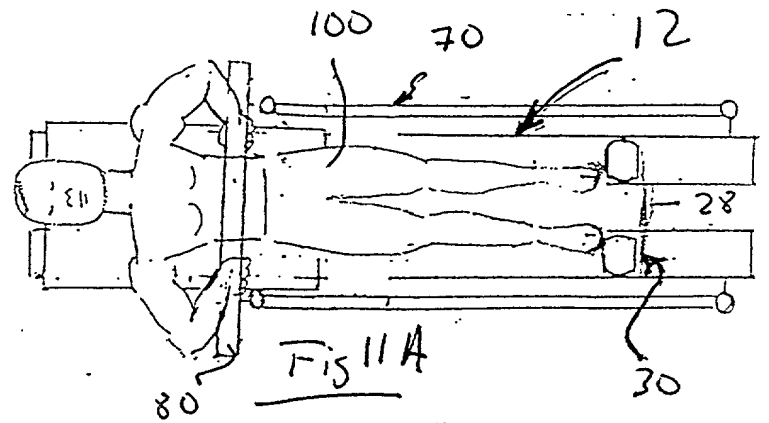
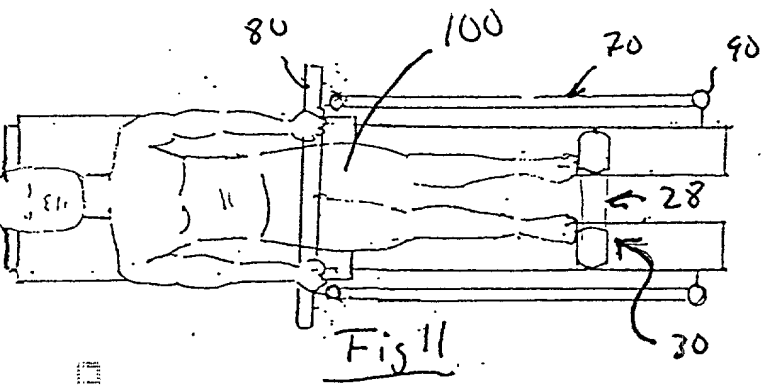
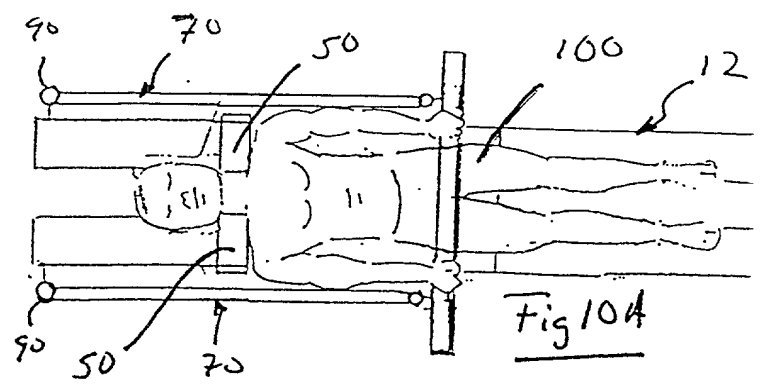
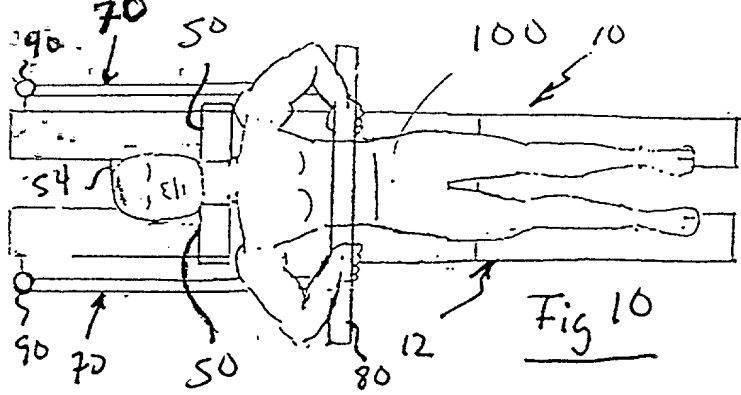
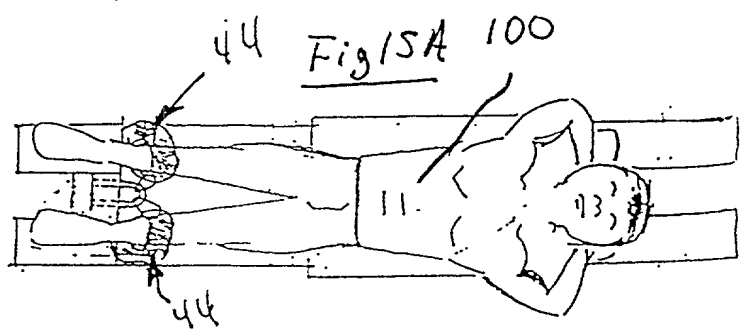
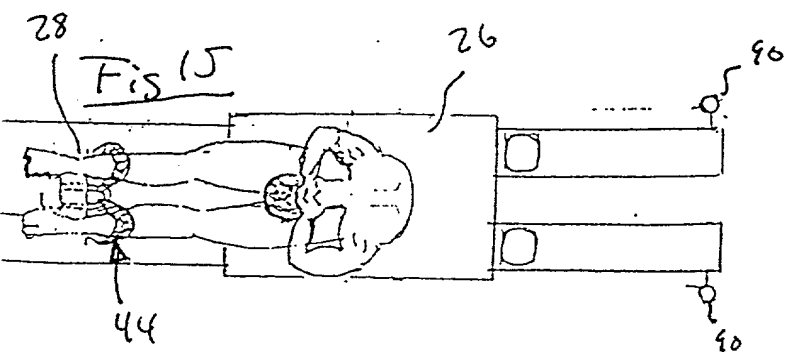
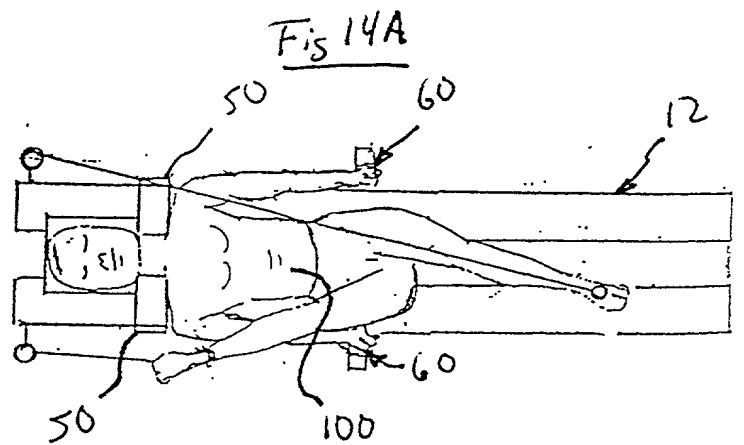
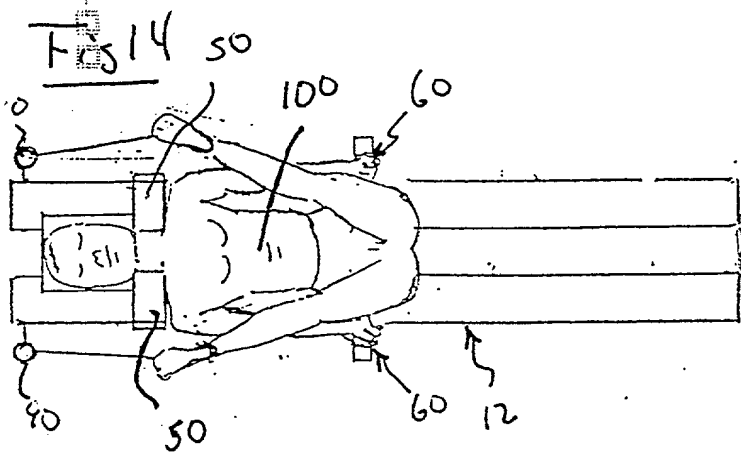
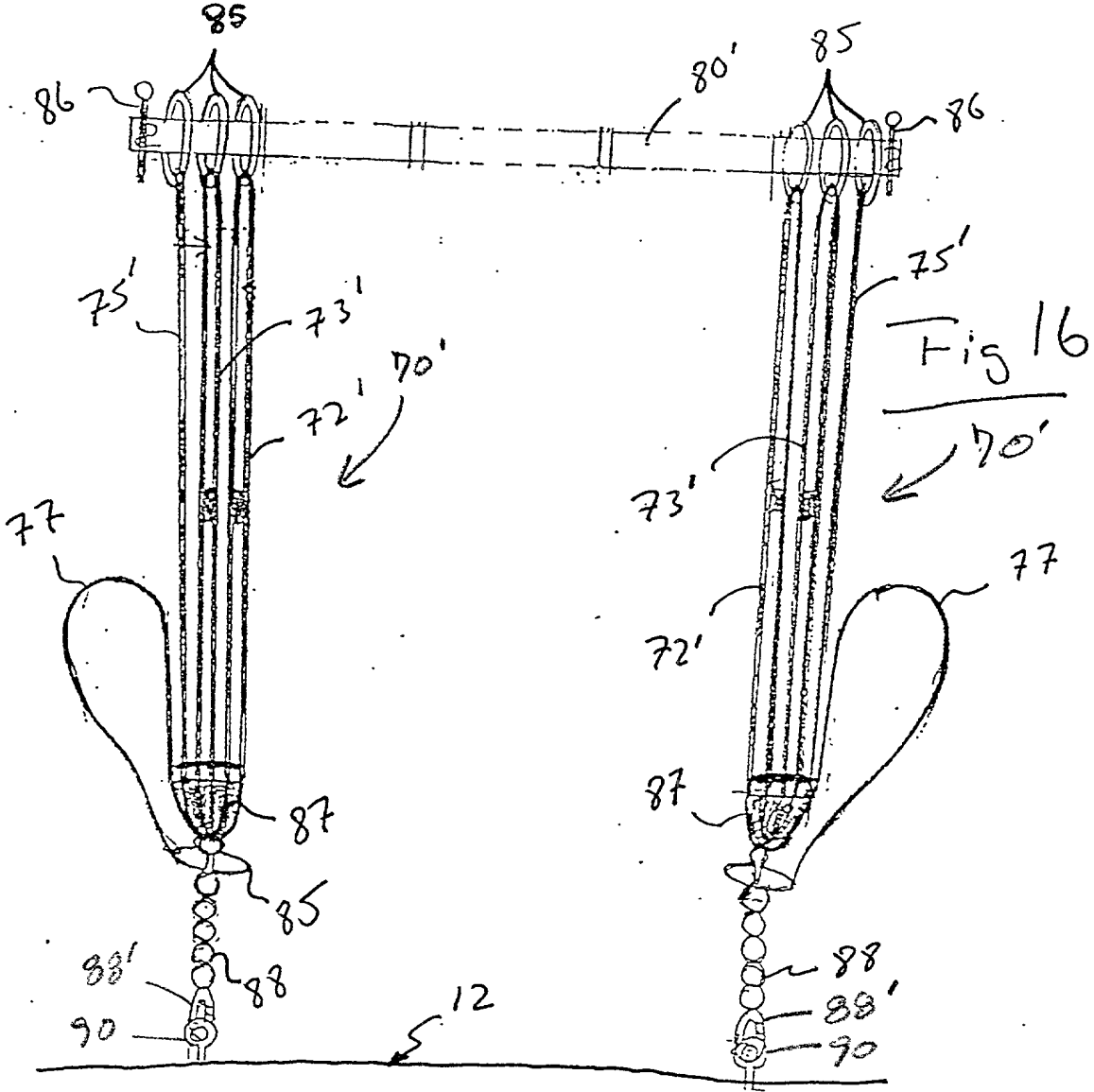


Fig. 9





- 54 -

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FIG 18

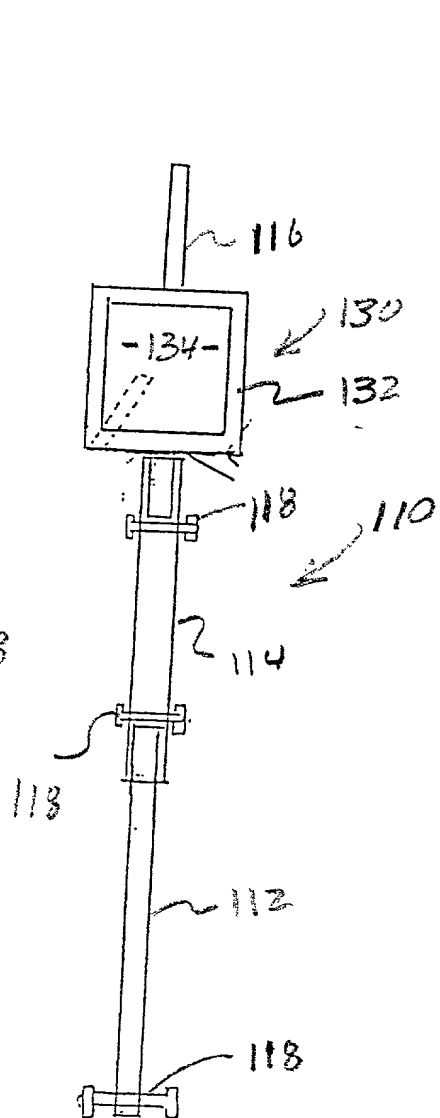


FIG 20

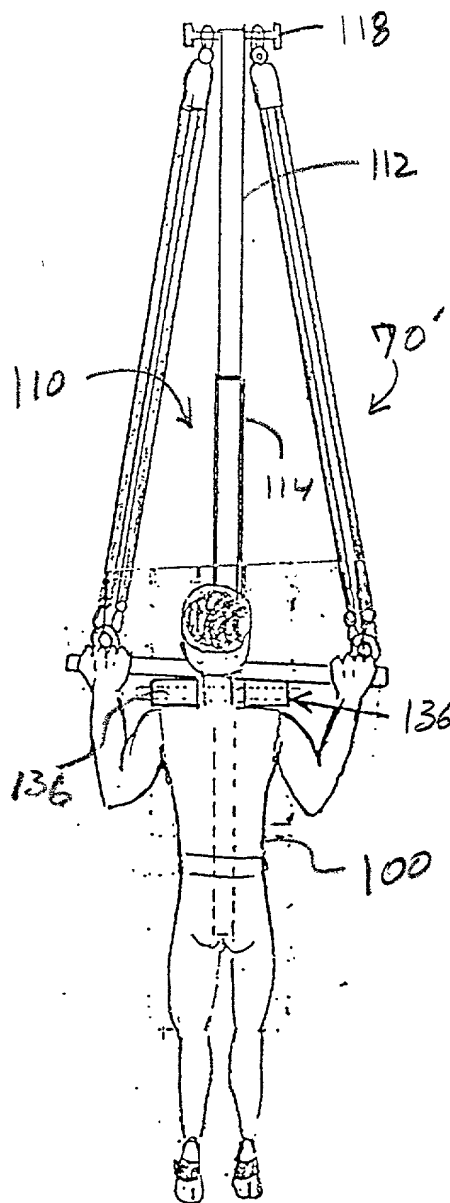
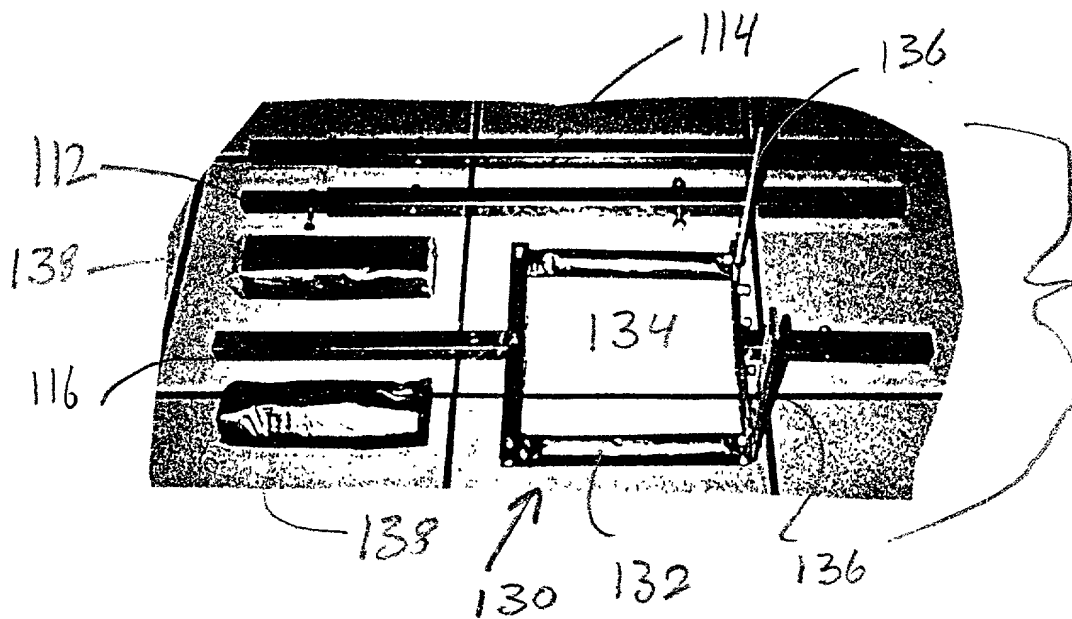


FIG 19



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FIG 21

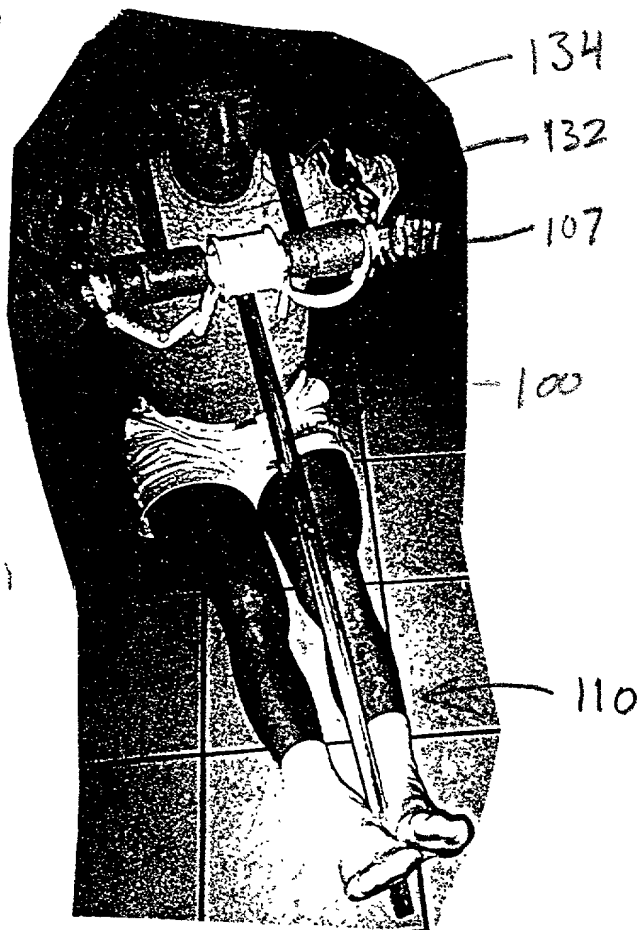


FIG 22

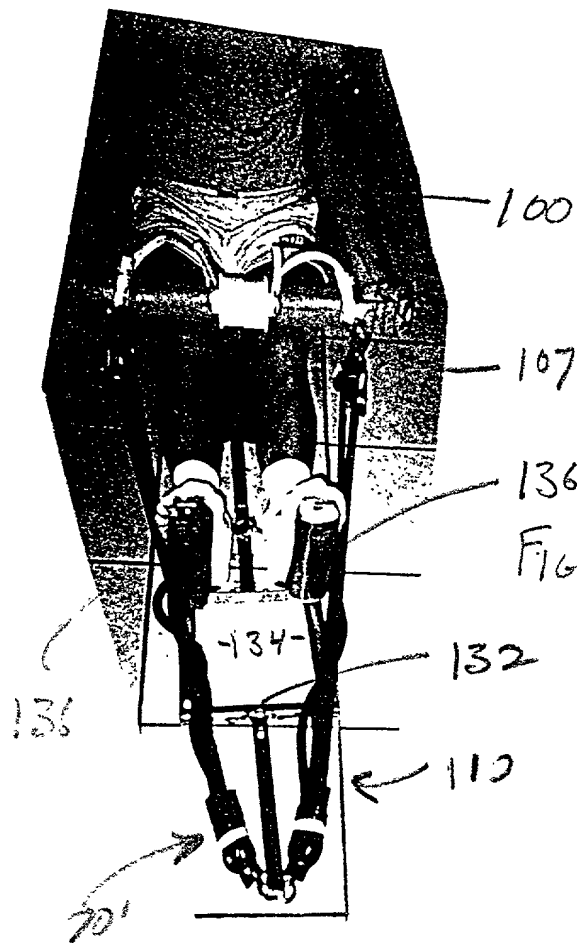


FIG 23

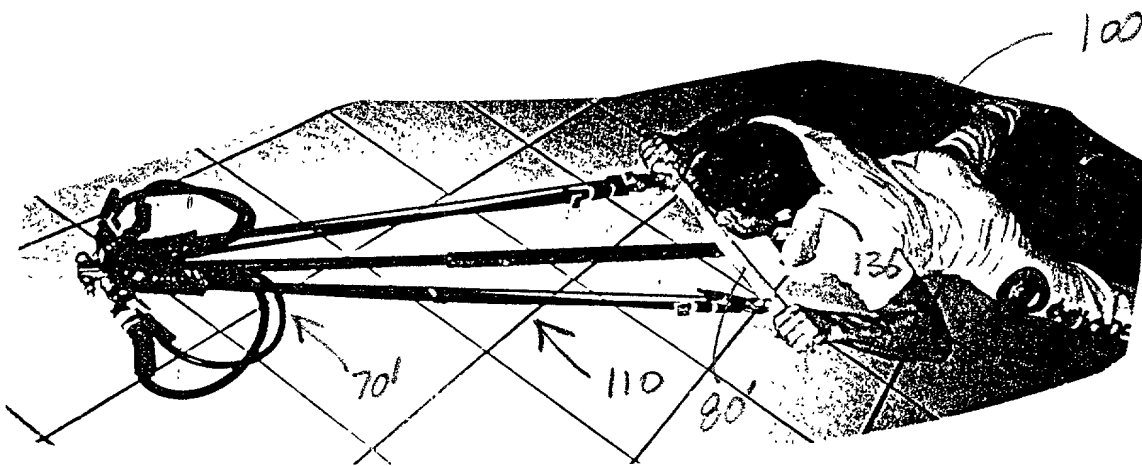


FIG 24

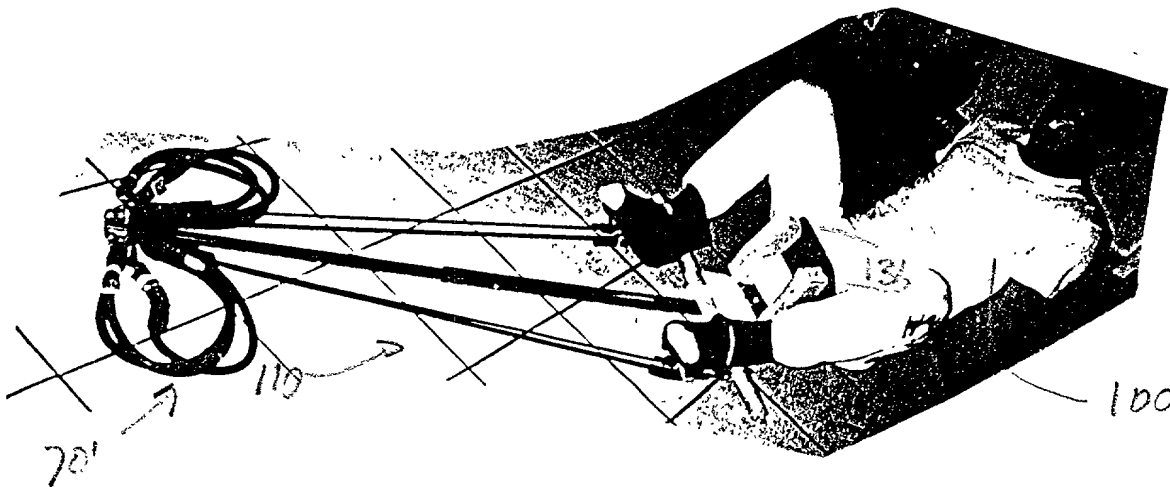


FIG. 25

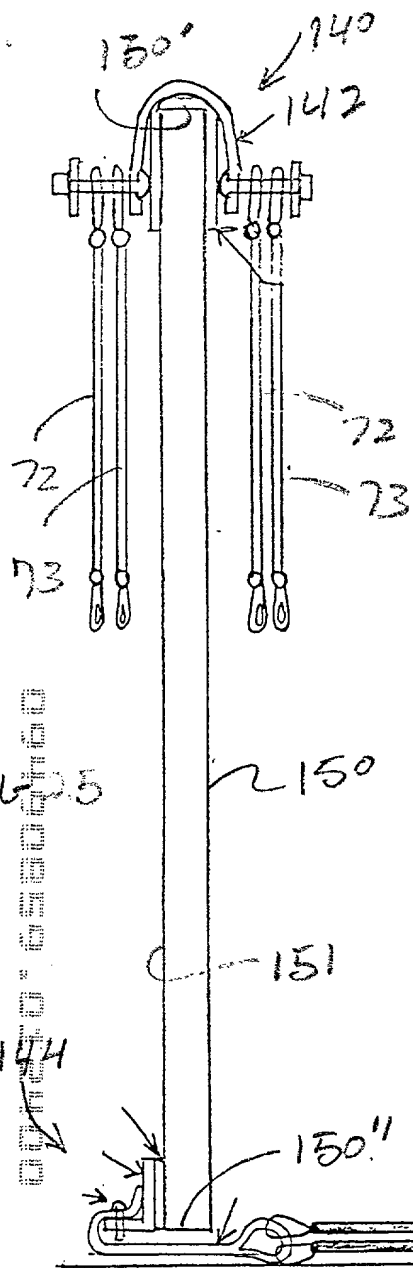


FIG. 26

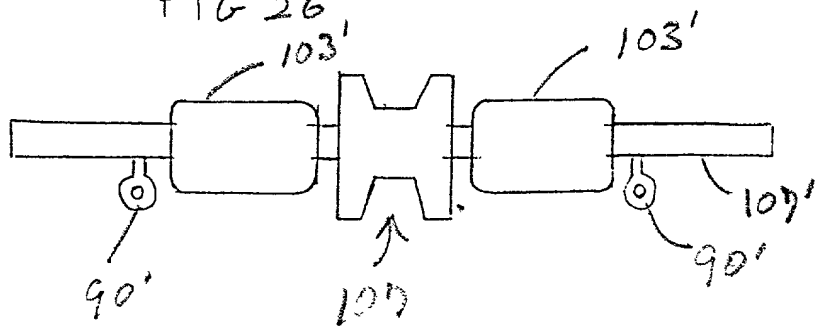


FIG. 27

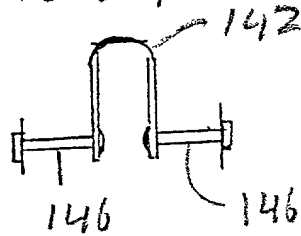


FIG. 28



FIG. 29

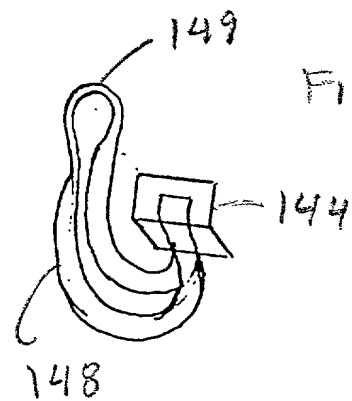


FIG. 33

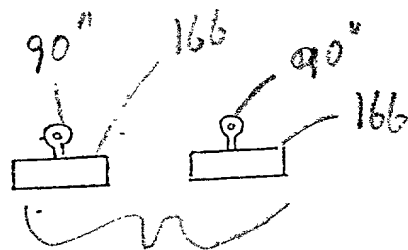
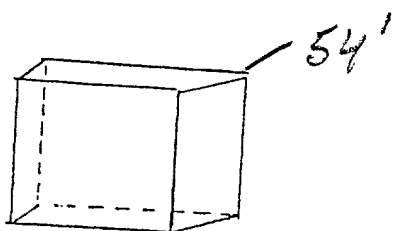


FIG. 32

FIG. 30

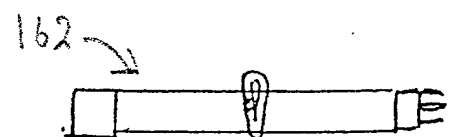
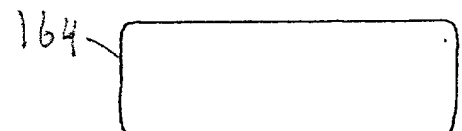


FIG. 31

MALLOY & MALLOY, P.A.

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

English Language Division

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

A PORTABLE EXERCISE ASSEMBLY

the specification of which

(check one)

☒ is attached hereto

\_\_\_\_\_ was filed on \_\_\_\_\_ as

Application Serial No. \_\_\_\_\_

and was amended on \_\_\_\_\_  
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate have a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	Yes	No
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	Yes	No
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	Yes	No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national PCT International filing date of this application:



09/477,951  
(Application Serial No.)

January 5, 2000  
(Filing Date)

Pending  
(Status)  
(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)  
(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made of information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

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Inventor's signature

Date

Residence

Citizenship

Post Office Address

(Supply similar information and signature for third and subsequent joint inventors.)

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